

SOUTH CAROLINA DEPARTMENT OF COMMERCE
RECYCLING MARKET
DEVELOPMENT ADVISORY COUNCIL



2007 ANNUAL REPORT

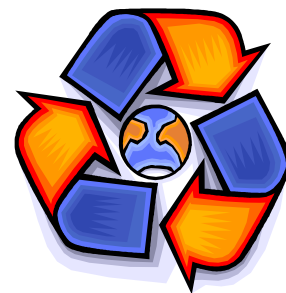
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ACKNOWLEDGEMENTS

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- Carolina Recycling Association
- Ever-Green Recycling
- Global Investment Recovery, Inc.
- Haynsworth Sinkler Boyd, P.A.
- JohnsonDiversey
- Keep the Midlands Beautiful
- New Carolina–South Carolina’s Council on Competitiveness
- United Resource Recovery Corporation
- Sonoco Recycling/Sonoco Products Company
- Southeast Recycling Development Council, Inc.
- South Carolina Department of Commerce
- South Carolina Department of Health and Environmental Control
 - Office of Solid Waste Reduction and Recycling
 - Center for Waste Minimization
 - Small Business Environmental Assistance Program
- South Carolina Biomass Council
- South Carolina Energy Office
- South Carolina Vocational Rehabilitation
- Sustainability Institute
- The Barr Companies
- Tracpak International, Inc.



South Carolina’s successful recycling market development program would not be possible without these partnerships.

RECYCLING MARKET DEVELOPMENT ADVISORY COUNCIL

The Recycling Market Development Advisory Council (RMDAC) consists of 14 members, representing recycling companies, industry, local governments, higher education and the general public. Established by the Solid Waste Policy and Management Act of 1991 and appointed by the Governor, the Council formulates programs and policies to encourage markets for new and existing recyclable materials. RMDAC is supported by the S.C. Department of Commerce Recycling Market Development staff. They coordinate the activities of the Council and provide technical and economic development assistance to recycling businesses and industry.

Mission

The Council's mission is to advocate opportunities to develop sustainable markets, support the growth of South Carolina's recycling industry, and advise the State on efforts required to increase recovery of recycled materials.

Guiding Principles

- To meet specific Council requirements contained in the Solid Waste Policy and Management Act of 1991.
- To assure existing and potential recycling businesses of a consistent, cost-competitive, quality supply of required recyclables.
- To identify existing barriers to and opportunities for increased recovery and use of recovered materials recycled within the State and take appropriate actions to eliminate or maximize these conditions.
- To monitor and understand the implications of institutional, economic, market and technical developments both in and out of the State that could measurably influence the generation and use of recyclables.
- To assist in the creation of jobs and investment of recycling industries in the State.
- To maximize the recycling rate within the State consistent with all appropriate environmental and economic considerations.
- To establish and maintain close working partnerships with allied State agencies and councils.

The Council continues to address recycling market needs, expand the number of recycling businesses and industries in the State and promote the economic and environmental benefits of recycling by developing policies and best management practices.

RMDAC is also actively engaged in the development of a Recycling Cluster, which is an opportunity for South Carolina's recycling industry to attract more business by expanding and increasing product offerings, leveraging existing infrastructure and resources and enhancing the economy through job creation and tax revenue generation.

This year, several members of RMDAC transitioned off of the Council. These Council members included tire industry representative Steve Padula, S.C. Department of Commerce representative Haskell Grant and petroleum industry representative Kay Clamp. Hari Krishnan with Michelin North America and Michael Baird with Milliken & Company are newly appointed members who will represent the tire industry and the S.C. Department of Commerce. Lin Longshore with Safety-Kleen has been recommended to the Governor to represent the petroleum industry.

RMDAC is fortunate to be represented by members with such a vast knowledge of expertise. Their passion and dedication to the Council are reasons why South Carolina's recycling industry is making great strides.

A list of the RMDAC members can be found in Appendix A beginning on page 38.

S.C. SOLID WASTE POLICY & MANAGEMENT ACT

The Solid Waste Policy and Management Act of 1991 requires that the Recycling Market Development Advisory Council consider the following elements in its annual report.

Any Revisions Which the Council Determines are Necessary to its Initial Report

There are no revisions to be added at this time.

A Description and Analysis of the Amounts and Types of Solid Waste Materials Recovered or Recycled in This State During the Preceding Year

The amounts and types of solid waste materials recycled in 2007 are illustrated on page 26.

Recommendations Regarding Materials Which Should be Added or Deleted From Source Separation, Recovery and Recycling Programs

Electronics, glass, construction and demolition materials and carpet should continue to be promoted as recyclable commodities and emerging markets.

Recommendations, Including Tax Incentives, to Facilitate the Development of Markets for Recovered Materials or Products in This State

Recycling tax incentives help create jobs and capital investment, promote and expand recycling businesses and create competitive markets. Incentives are an important instrument in maintaining and attracting new jobs and investment in South Carolina. Tax incentives can encourage the growth of new and existing recycling companies in the State and expand local markets for recyclable materials. This important tool can assist in job creation as well as reduce the amount of waste going to the landfills, minimize pollution, create new markets, save energy and conserve natural resources.

In addition, providing corporate income tax credits for qualified recycling equipment can be beneficial to the recycling industry because equipment costs are often the most burdensome to recycling businesses. Local markets for recyclable materials will grow as economies of scale are reached by additional investments in equipment by recycling companies. Legislation has been drafted in partnership with RMDAC and the South Carolina law firm of Haynsworth Sinkler Boyd, P.A., to advocate recycling equipment income tax credits, and RMDAC anticipates that the legislation will be filed during the 2008 South Carolina legislative session.

Council will also continue to support the development of legislation that exempts recycling equipment from local property taxation. In South Carolina, pollution control equipment is exempt from property taxes. State and federal environmental regulations require a company to install this equipment to control air, water and landfill emissions. Other states have similar incentives, but the definition includes a broader range of equipment for environmental protection purposes. For example, North Carolina exempts from property tax real or personal property used exclusively for recycling or resource recovery of or from solid waste. Expanding

South Carolina's definition of pollution prevention equipment to include recycling equipment will help encourage the growth of recycling businesses.

2007 HIGHLIGHTS

The Recycling Market Development Advisory Council accomplished many goals and objectives in 2007. These accomplishments include forming the Recycling Cluster, convening the Recycling Cluster Forum, promoting and presenting the Recycling Business Awards, and carrying out the RMDAC Workplan. Also achieved in 2007 were the implementation of the Smart Business Recycling Program, issuing of the Materials Recovery Facilities Request for Proposal, facilitation of proposed recycling legislation and creation of the 2008 Strategic Plan for the Recycling Cluster.

Recycling Cluster

The Recycling Cluster helps enhance South Carolina's economy by promoting the \$6.5 billion industry and giving recycling businesses and industries opportunities to expand and increase access to their product offerings. Over the past year, RMDAC has worked with New Carolina-S.C.'s Council on Competitiveness (New Carolina) to activate the Recycling Cluster. The mission of the Cluster is to expand and strengthen South Carolina's recycling industry by establishing policy, building networks, promoting market development and leveraging existing infrastructure. The vision is for South Carolina to be a national leader in the recycling industry in terms of creating jobs and investment and providing sustainable markets for recyclable materials. With the assistance of New Carolina, RMDAC has successfully launched the Recycling Cluster. An invitation to join the Recycling Cluster was extended to South Carolina's 300 recycling businesses and industries, and over 50 companies expressed an interest in being a part of this effort. A Recycling Cluster Committee was developed, and currently the committee consists of 42 business and industry representatives.

Mission

Expand and strengthen South Carolina's recycling industry by establishing policy, building networks, promoting market development and leveraging existing infrastructure.

Vision

For South Carolina to be a national leader in the recycling industry in terms of creating jobs and investment and providing sustainable markets for recyclable materials.

On September 10, 2007, the first Recycling Cluster Committee meeting was held at the P. Charles LaRosa Jr. Human Resources Development Center of the S.C. Vocational Rehabilitation Department in Columbia. The committee reviewed the *7 Groups of Cluster Activities*, which include Business Environment, Value Chain, Firm Formation, Joint Marketing, Intelligence, Process Human Resource (Process H/R) and Joint Research & Development (Joint R&D). The Committee brainstormed the strengths, weaknesses, opportunities and threats for each activity. Information obtained during this meeting was utilized to develop an action plan for the Recycling Cluster. Preliminary plans were to conduct activities in two phases of implementation. For Phase I of the Recycling Cluster, the Committee developed strategies and action items around 4 of the 7 groups of activities: Business Environment, Value Chain, Firm Formation and Joint Marketing, and it developed a Cross Functional committee, which is a combination of the Intelligence, Process H/R and Joint R&D areas. Phase II activities of the Recycling Cluster will incorporate the Intelligence, Process H/R and Joint R&D and would be accomplished later in the process. Chairpersons for each of the focus areas were named. To achieve the objectives and action items set forth in the action plan, the

Recycling Cluster Committee decided to meet three times a year in conjunction with the regularly scheduled RMDAC meetings.

Recycling Cluster Forum

On October 5, 2007, RMDAC hosted a Recycling Cluster Forum at the Columbia Metropolitan Convention Center. The Recycling Cluster Forum provided businesses and industry the opportunity to partner and collaborate on ways to expand and strengthen the \$6.5 billion recycling industry. More than 75 participants attended the day-long event. During the Forum, the Recycling Market Development staff gave participants an update on the S.C. Department of Commerce and Recycling Market Development Program activities. The S.C. Department of Health and Environmental Control's Office of Solid Waste Reduction and Recycling provided information on the Smart Business Recycling Program and proposed solid waste management regulations. New Carolina-S.C.'s Council on Competitiveness provided an overview on cluster development, activation and management. Representatives from the S.C. Department of Commerce presented information on small business financing and exporting services. Attorneys from Haynsworth Sinkler Boyd, P.A., presented information on proposed tax incentives for recycling equipment and provided draft legislation for review and comment by the recycling industry attendees. Participants also received information on the Recycling Cluster's mission, vision and *7 Groups of Cluster Activities* that clusters pursue. The participants were asked to review the strengths, weaknesses, opportunities and threats taken from the September 10, 2007, Recycling Cluster Committee meeting and develop goals and action items associated with Business Environment, Firm Formation, Joint Marketing, Value Chain and the Cross Functional group incorporating the Intelligence, Process H/R and Joint R&D areas of focus. RMDAC staff compiled the items from the brainstorming sessions and then developed a comprehensive action plan for the Recycling Cluster.

A copy of the S.C. Department of Commerce's press release on the Recycling Cluster is located in Appendix C on page 42.

Recycling Business Awards

The Recycling Business Awards ceremony is an annual event sponsored by RMDAC to acknowledge recycling businesses and industry programs making positive economic, environmental and social strides in South Carolina. This year, the awards ceremony was held at the Columbia Metropolitan Convention Center during the Recycling Cluster Forum. Council member Chris Fisher was the Master of Ceremonies, and Representative Laurie Slade Funderburk was the keynote speaker. Representative Funderburk addressed the audience on the health and environmental impacts of electronic waste and the importance of implementing legislation to address these concerns. Four recycling companies were recognized during the ceremony. The award categories were Best Small Recycling Business, Best Medium Industry Recycling Program, Best Emerging Market Recycling Business and Recycler of the Year. A copy of the S.C. Department of Commerce's press release for the Recycling Business Awards is provided in Appendix D on page 39.

Workplan Accomplishments

Through consultation with the S.C. Department of Health and Environmental Control's Office of Solid Waste Reduction and Recycling (S.C. DHEC's OSWRR), RMDAC developed a workplan that addressed and accomplished the following:

- Activated the statewide Recycling Cluster with support from New Carolina-South Carolina's Council on Competitiveness.

- Drafted corporate income tax incentive legislation for “Qualified Recycling Equipment” with assistance from attorneys Haynsworth Sinkler Boyd, P.A.
- Prepared and issued a Request for Proposals (RFP) for a Materials Recovery Facilities feasibility study.
- Worked with S.C. DHEC on the development of compost regulations.
- Researched and compiled information for a recycling business grant program.
- Researched used oil/petroleum for beneficial reuse other than energy.
- Researched beneficial reuse of waste tires for value-added products.
- Researched promoting recycling business start-ups by developing workshops and written materials.
- Drafted RFP for a Recycling Business Development Program.

Additional Highlights

- Created 620 new jobs, generated \$929 million in capital investment and assisted with economic development opportunities and expansions in the recycling industry.
- Continued to update and enhance the online recycling businesses directory located on the S.C. Department of Commerce’s Web site.
- Partnered with S.C. DHEC on the development of the Smart Business Recycling Program and press event.
- Created awareness of the role of the recycling industry through education and marketing.
- Worked on drafting and supporting legislation for electronic waste and tax incentives.
- Provided technical assistance to approximately 25 entities on the start-up or expansion of recycling businesses and provided referrals to financial resources for over 20 companies regarding financing opportunities offered by organizations such as the Small Business Administration, Business Carolina and the Business Development Corporation.
- Supported efforts to increase the State’s recycling rate by encouraging businesses and industry to report their recycling data.
- Promoted the Recycling Market Development online recycling businesses directory, S.C. Materials Exchange, Index of Waste Minimization Resources for South Carolina Industries and the Smart Business Recycling partnership.
- Continued work with other states, business and industry to research the alternatives to increase the overall recovery rates for plastic bottles, aluminum cans, glass, and other recyclables.

Specific information on these accomplishments is outlined in the Committee Reports section of this report, beginning on page 12.



Best Small Recycling Business
Renew Resources

Best Medium Industry Recycling Program
PBR of Columbia

Best Emerging Market Recycling Business
Southeastern Plastics Recovery

Recycler of the Year
Nucor Steel-Darlington



2007 PROGRAM INITIATIVES

RMDAC performs its function through the support of three committees. The Executive Committee is charged with providing guidance, reviewing objectives and participating on other RMDAC committees. The Executive Committee consists of the RMDAC Chair, Vice Chair and staff. The Policy and Strategic Initiatives and the Recycling Business and Economic Development committees are responsible for carrying out the activities related to the key areas of focus for the Council. These committees were created to address policy, market development and emerging market issues. The committees comprise Council members and staff, with support from S.C. DHEC's Office of Solid Waste Reduction and Recycling.

Executive Committee Goals and Objectives

- Define the Recycling Cluster as an economic engine in South Carolina.
- Expand marketing, research, outreach and education to promote recycling businesses and job creation.
- Increase South Carolina's capital investment in the recycling industry.
- Increase South Carolina's recycling industry per capita wage rate.
- Provide additional research on markets not yet being served by South Carolina's recycling industry and explore emerging recycling technologies as business opportunities.
- Provide technical assistance through the Smart Business Recycling Program.
- Recruit new recycling businesses through the development of incentives and create expansion opportunities for existing recycling companies based on targeted research.
- Work with South Carolina businesses and industries to assist them with their recycling needs.
- Educate businesses and industries about the economic and environmental benefits of recycling.
- Work with S.C. DHEC to develop compost regulations.

Policy and Strategic Initiatives Committee

- Support electronic waste legislation.
 - H3392: Manufacturer Responsibility Act
 - H3398: Electronic Recycling Act
 - S169: Electronic Recycling Program
- Support recycling legislation.
 - H3649: Energy Freedom and Rural Development Act
- Explore used oil alternatives.
- Examine re-refined oil and potential for state agencies to use it.
- Explore new markets for waste tires.
- Recruit new recycling businesses and expand existing recycling business and industry.
- Implement recycling business and industry incentives that promote job creation, capital investment, expansion and use of recycling equipment.
- Engage South Carolina's recycling industry as advocate for recycling policies and new markets.
- Assist with strategies for RMDAC Work Plan.

Recycling Business and Economic Development Committee

- Identify new markets for glass recycling.
- Attend and stay abreast of the South Carolina Biomass Council's efforts and initiatives.
- Explore carpet recycling efforts.
- Assist with the development of the Materials Recovery Facilities Feasibility Study Request for Proposal.
- Assist with strategies for RMDAC Work Plan.
- Research need for a study on viable composting businesses to recruit to the state once S.C. DHEC composting regulations are promulgated.
- Promote recycling business start-ups by developing workshops and written materials.

EXECUTIVE COMMITTEE

Mission

The Executive Committee assists RMDAC by providing guidance, reviewing objectives and participating on other committees.

2007 Objectives

Goal: Position South Carolina's recycling industry as a competitive, viable participant in the development of jobs and economic development.

- Formulate plans for the South Carolina Recycling Cluster activation.
- Engage recycling businesses and industry as advocates.
- Encourage partnerships and networking opportunities for South Carolina's recycling businesses and industry.
- Promote economic development and job creation for South Carolina's recycling industry.

2007 Accomplishments

- Activated South Carolina's Recycling Cluster.
- Held Recycling Cluster Forum and promoted networking opportunities for recycling businesses and industry.
- Engaged recycling businesses and industry as advocates.
- Identified prospects for South Carolina's recycling industry.
- Secured presenter from New Carolina-S.C.'s Council on Competitiveness to discuss South Carolina clusters.

POLICY AND STRATEGIC INITIATIVES COMMITTEE

Mission

The Policy and Strategic Initiatives Committee assists RMDAC by implementing strategic market development policy and programs through legislative, governmental and private sector initiatives.

2007 Objectives

Goal: Obtain legislative champions to support RMDAC and the recycling program statewide.

- Investigate and summarize proposed electronic waste legislation.
- Educate policy-makers on RMDAC and work with legislative committees to familiarize them with South Carolina's recycling industry.
- Investigate changing RMDAC legislation language to reflect a later due date for its Annual Report so that it coincides with S.C. DHEC's due date, March 15, for its Solid Waste Management Annual Report.
- Further investigate changes to legislation to add new representatives to RMDAC to represent electronic waste, construction and demolition, and the carpet industry.
- Investigate incentives for new recycling businesses and expansion opportunities.
- Investigate developing financing options for recycling businesses through grants.
- Expand tax incentives to include recycling businesses.

2007 Accomplishments

- Researched and summarized proposed electronic waste legislation.
 - H3392: Manufacturer Responsibility Act
 - H3398: Electronic Recycling Act
 - S169: Electronic Recycling Program
- Worked with Haynsworth Sinkler Boyd, P.A., on drafting proposed tax incentive legislation for recycling businesses and industry.
- Investigated opportunities for changes to RMDAC legislation regarding dates requirements for submittal of Annual Report.

RECYCLING BUSINESS AND ECONOMIC DEVELOPMENT COMMITTEE

Mission

The Recycling Business and Economic Development Committee works to facilitate the recovery of established recycling commodities for reuse. This committee encourages the increased collection and use of these materials and looks at ways to overcome barriers to markets.

2007 Objectives

Goal: Increase recovery and reuse of recyclable materials in South Carolina.

- Work with the Policy and Strategy Committee to recommend changes to RMDAC legislation for new industry representation on the Council.
- Explore opportunities with the S.C. Carolina Energy Office and the S.C. Biomass Council.
- Investigate research projects.
- Investigate ways to boost glass recovery and encourage electronic waste recovery.

2007 Accomplishments

- Secured presenter from Carolina Recycling Alliance to discuss glass recycling.
- Secured presenter from Sonoco Recycling to present information on its materials recovery facility (MRF) located in Columbia, South Carolina.
- Drafted Request for Proposal for a MRF feasibility study.
- Secured presenter from the S.C. Energy Office to discuss the S.C. Biomass Council in an effort to pursue recycling agricultural waste to diesel.

RECYCLING MARKET DEVELOPMENT ADVISORY COUNCIL COMMITTEE MEMBERS

Executive Committee Members

Gerry Fishbeck, *RMDAC Chair, URRC*
Ronnie Grant, *RMDAC Vice-Chair, Sonoco*
Chantal Fryer, *Staff*
Tonya Lott, *Staff*

Policy and Strategic Initiatives Committee

Norman Chandler, *Chair*
Gerry Fishbeck, *URRC*
Steve Padula, *Michelin*
Roger LeDuc, *City of Aiken*
Donna London, *Clemson University*
Vic Carpenter, *Anderson County*
Chantal Fryer, *Staff*

Recycling Business and Economic Development Committee

Haskell Grant, *Chair, Milliken & Company*
Chris Fisher, *Fisher Recycling*
Steve Carreras, *Recycle America Alliance*
Ronnie Grant, *Sonoco*
Cheryl Kirkland, *Alcoa Mt. Holly*
Phil Ammons, *Plastics Provider*
Art Levy, *Carolinas Recycling Group*
Tonya Lott, *Staff*

2008 GOALS AND OBJECTIVES



The Council has developed its goals and objectives for 2008. RMDAC will continue to work with New Carolina-S.C.'s Council on Competitiveness to promote the Recycling Cluster and seek additional committee members. This effort will be accomplished by marketing the Recycling Cluster through media releases, Web site placement, advertisements and presentations to relevant associations and conferences. A minimum of three Recycling Cluster Committee meetings will be held in addition to scheduled conference calls. These activities will help further the

goals and objectives of the Cluster as well as South Carolina's economy.

In 2008, the Council will pursue marketing strategies that will assist in expanding the number of South Carolina recycling businesses and industry. In addition, RMDAC will conduct research, outreach and education that will help provide opportunities for the start-up of new businesses and creation of new and emerging markets. Examples of these markets include carpet, electronic waste, and construction and demolition. RMDAC will utilize research to expand recycling businesses such as waste tires used in crumb rubber.

The Council and staff will continue to use the Smart Business Recycling Program as a tool to provide waste reduction and recycling assistance to businesses, industry, the public and various organizations. RMDAC staff will continue to work with its partners to educate businesses and industry on waste reduction and recycling. The education will concentrate on the importance of reducing waste and the value and benefits associated with recycling. These benefits include reducing the amount of material landfilled, reducing disposal costs, manufacturing products from recycled materials, reducing pollution and conserving natural resources.

RECYCLING MARKET DEVELOPMENT STAFF ACTIVITY

The Recycling Market Development Program functions within the Business Services area at the S.C. Department of Commerce. The staff promotes market development for recycled materials, assists start-up recycling businesses, helps existing companies with their expansion efforts and provides technical assistance to business and industry with their efforts to reduce waste streams and increase the amount of materials recycled.

RMDAC staff received 170 requests for assistance from businesses, industries, government agencies and the general public. RMDAC staff followed up on all these requests, and assistance was provided through the South Carolina Smart Business Recycling Program. The staff provided assistance with business development, recycling, waste reduction, marketing, finance and regulatory affairs. This number reflects assistance on the establishment of new recycling businesses and industry as well as the expansion of existing recycling businesses in South Carolina.

South Carolina Recycling Industry's Economic Impact

Mark Vintner, Wachovia Senior Analyst, states, "South Carolina's economy is robust!" According to the 2006 study, *The Economic Impact of the Recycling Industry in South Carolina*, conducted by College of Charleston economists Dr. Frank Hefner and Dr. Calvin Blackwell, more than 300 recycling businesses in South Carolina contribute to an estimated **\$6.5 billion** in economic impact in the State. The study reports that over 37,000 South Carolina jobs are attributed to the recycling industry, and that over the next five years recycling businesses are anticipated to grow approximately 12% annually. This study is an important tool for attracting new recycling businesses and industry into the Palmetto State and a copy of this study can be viewed at

<http://www.sccommerce.com/teamscpdfs/recycling/recycleReport.doc>.

This year, South Carolina's recycling industry generated \$929 million in capital investment and 620 new jobs. South Carolina's economic future is bright, and RMDAC is committed to helping enhance the State's economic soil conditions in an effort to attract new businesses and industry and promote the expansion of existing businesses. This bright future is evident as South Carolina becomes home to the world's largest plastic bottle recycler, URRC LLC.

"South Carolina has all the tools and assets necessary for continued success. With the state, regional alliances, local allies and the private sector all working together, new opportunities for South Carolinians are being created every day."

Secretary of Commerce Joe E. Taylor Jr.

A copy of the S.C. Department of Commerce's United Resource Recovery Corporation press release on is located in Appendix B on page 40.

Recycling Cluster Forum

On October 5, 2007, RMDAC hosted a Recycling Cluster Forum at the Columbia Metropolitan Convention Center in Columbia, South Carolina. The Recycling Cluster Forum provided businesses and industry the opportunity to partner and collaborate on ways to expand and strengthen their product offerings. During the Forum, the Recycling Market Development staff gave participants an update on the S.C. Department of Commerce and Recycling Market Development Program activities. The S.C. Department of Health and Environmental Control's Office of Solid Waste Reduction and Recycling provided information on the Smart Business Recycling Program and proposed solid waste management regulations. New Carolina-S.C.'s Council on Competitiveness provided an overview on cluster development, activation, and management. Representatives from the S.C. Department of Commerce presented information on small business financing and exporting services. Attorneys from Haynsworth Sinkler Boyd, P.A., presented information on proposed recycling legislation. Participants received information on the Recycling Cluster's mission, vision and the seven groups of activities that clusters pursue in their formation. The participants were asked to brainstorm the strengths, weaknesses, opportunities and threats associated with Business Environment, Firm Formation, Joint Marketing and Value Chain. An additional group entitled Cross Functional, incorporating Business Environment, Firm Formation, Joint Marketing and Value Chain, was formed. More than 75 participants attended this exciting event.



Evaluations from the participants indicated the Forum was well planned and that the venue was excellent. Participants indicated that the information presented during the Recycling Cluster Forum was beneficial and that the event was a good use of their time. A copy of the evaluation is located in Appendix F on page 48, and a copy of the 7 Groups of Activation is located in Appendix H on page 50.

Tax Incentives

RMDAC conducted a comprehensive search to determine what tax incentives exist in South Carolina and in other states for recycling companies. The Council will analyze these incentives and work with New Carolina-S.C. Council on Competitiveness, Carolina Recycling Association and the Recycling Cluster to develop a plan for the state. RMDAC will work to ensure that recycling businesses and industry are engaged in legislation and the legislative process. In addition, the Council will monitor recycling legislation that is introduced and determine advocates for the legislation.

Materials Recovery Facilities

RMDAC developed a Request for Proposal to conduct a materials recovery facility (MRF) feasibility study. The objective of the study is to determine if a need exists in South Carolina for additional new MRFs. Information from this study should help uncover what markets are not being met by the state's recycling industry and aid in the expansion of business and industry recycling. After the results of the feasibility study are obtained by the Council, the study outcome and recommendations will assist with determining how many potential jobs will be created as well as potential dollars of capital investment. The study results will help to identify barriers and opportunities for increased recovery of recyclable materials. Depending

upon the outcome of the MRF study, it may also provide opportunities for the start-up of new businesses or for the expansion of existing businesses.

Compost Regulations

The S.C. Department of Health and Environmental Control is developing compost regulations for the state. Once the compost regulations are in place, RMDAC will conduct a search of large-scale composting companies to recruit to South Carolina. RMDAC will work with the S.C. Department of Commerce to provide outreach to and recruit companies to the State. Once recruited, the Council will document the economic impact that composting businesses have on South Carolina's recycling industry.

Grant Funding Program

The Council will research and develop a grant program to encourage markets and the sustainable recovery for materials. The program will also promote the reduction of solid waste to disposal facilities. Under this initiative, RMDAC will investigate other states' programs and criteria for awarding the grants.

Used Oil/Petroleum

RMDAC will research the reuse, disposal and development of markets for used oil and similar lubricants. The Council will identify opportunities for alternative uses of used oil and petroleum-derived lubricants other than those for energy production. An example of one alternative is re-refining oil for reuse. If re-refining oil is deemed optional, RMDAC will work with S.C. DHEC, other local and state governments, and the private sector to consider alternative uses of used oil. The Council will research to determine which South Carolina companies have the capability to re-refine oil. In addition, RMDAC will work with Global Business Development to recruit companies.

Waste Tires

The Council will research and encourage higher-end use of waste tires. Opportunities for markets and value-added products using waste tires will be evaluated. RMDAC will engage allies and partners to develop markets and value-added products using waste tires. The Council will work with the Rubber Manufacturers Association, Asphalt Rubber Technology Service and S.C. DHEC to assist with market development. The Council will also engage the S.C. Department of Transportation in discussions to utilize recycled rubber products in applications other than asphalt and paving. In addition, RMDAC will evaluate the use of tires in civil engineering projects.

Recycling Business Start-ups

RMDAC would like to create a Recycling Business Development program to assist entrepreneurs with starting and/or expanding the scope of a recycling business. The scope of program will address:

- Recycling markets needed in South Carolina, information regarding supply, potential competition and end users.
- Background information on proven processes that have been used to beneficially recycle each waste material with potential cost/earnings.

- Estimated capital investment to start each type recycling process, available resources and equipment suppliers.
- Representatives from each type of recycling business, consultants and contractors.
- Business plans, access to investment groups, available grants, tax incentives and other information necessary for the start-up or expansion of a recycling business.

The Recycling Business Start-up Program will be developed by a contractor through the Request For Proposal process. Delivery and implementation of the program will be facilitated by staff through workshops, marketing, outreach and Web site access.

Online directory of recycling businesses

The Recycling Market Development staff continues to utilize the online recycling business directory to assist businesses, government agencies and other organizations interested in promoting recycling and waste reduction. The online searchable directory is a compilation of more than 300 South Carolina recycling businesses and is updated on an ongoing basis. The online directory provides contact information, business type (hauler, manufacturer, processor, and broker) and a list of materials accepted or collected by category. The number of recycling businesses in the online directory continues to grow as staff maintains and updates the database through the addition of new businesses. Staff and S.C. DHEC use the directory to match companies that have materials to recycle with S.C. recycling businesses. The online business directory is located at <http://www.sccommerce.com/SearchRecycling.aspx>.

South Carolina Smart Business Recycling Program



Recycling. It doesn't cost. It pays!

The S.C. Smart Business Recycling Program provides free, confidential, non-regulatory technical assistance on recycling, waste reduction, beneficial reuse and other ways for businesses to conserve resources and improve their bottom line. The program offers site visits, waste assessments, market assistance, educational materials, staff training and other services. It is a partnership between RMDAC and S.C. DHEC's Office of Solid Waste Reduction and Recycling, Center for Waste Minimization and Small Business Environmental Assistance Program. These partners meet on a quarterly basis to discuss the program's initiatives and strategies. Some of the initiatives the partners collaborated on include best management practices for office paper, corrugated cardboard and fluorescent lamps. Tip sheets on starting a recycling business and on waste reduction were also drafted. The Smart Business Recycling website is located at www.scdhec.gov/smartbusiness. Businesses and industry can also seek assistance by calling toll-free 1-800-768-7348. The Smart Business Recycling Program asks that businesses and industry voluntarily report their recycling rate to their respective Recycling Coordinators. By reporting these numbers, these entities are

helping to increase the overall State recycling rate. In 2007, staff provided assistance to 170 businesses through the Smart Business Recycling program.

The Smart Business Recycling Program also promotes the S.C. Materials Exchange. This free, Web-based service seeks to reduce waste by facilitating the exchange of reusable materials by businesses, non-profit institutions and government agencies. Utilizing this tool can help minimize waste and promote recycling markets. It also helps maximize the state's recycling rate. The South Carolina Materials Exchange can be accessed at www.scdhec.gov/scme.

On November 15, 2007, an official press event for the Smart Business Recycling Program was held at Sonoco Recycling in Columbia. Secretary of Commerce Joe E. Taylor Jr. addressed the audience and provided information on South Carolina's robust economy and how recycling is making a positive impact on South Carolina. Commissioner C. Earl Hunter, S.C. DHEC, also spoke to the audience and conveyed the health and environmental benefits of recycling. Mr. Harris DeLoach, CEO of Sonoco, expressed the proactive strides his company has made in the recycling arena and his appreciation of the staff at Sonoco Recycling. America Recycles Day was the perfect day to launch the program and promote recycling in the State.

A copy of the S.C. DHEC Smart Business Recycling Program press release is located in Appendix E on page 46.



Business and Recycling Seminar

On May 23, 2007, the Recycling Market Development Program and S.C. DHEC's Office of Solid Waste Reduction and Recycling hosted a seminar on business and industry recycling at the S.C. State Museum in Columbia. Speakers for the seminar included S.C. DHEC's Office of Reduction and Recycling, Sonoco, Innertech, Mumford Industries, Carolina Metals Group, Lexington Medical Center and Global Investment Recovery.

They presented information on recyclable commodities such as paper, plastic, metals and electronics. In addition, the seminar highlighted what is happening around the state in the recycling industry.

Other Activities

The Recycling Market Development staff attended the National Recycling Coalition's 26th Annual Congress & Expo held in Denver, Colorado; Carolina Recycling Association Annual Conference and Trade Show in Greenville; E-Scrap Conference in Atlanta, Georgia; and the Scrap for Profit and Carpet America Recovery Effort Conferences in Charleston. By participating in these conferences, staff gains insight on recycling markets, strategies for increasing recovery rates and information on recycling policies and incentives. In addition, these conferences provide the Recycling Market Development staff opportunities to network with other recycling professionals, businesses and industry—vital for building new partnerships.

Buying Recycled

The Recycling Market Development staff is working to promote buying recycled. Buying products made from recycled content generates demand for these materials, conserves natural resources and saves energy. Staff worked with the S.C. Department of Commerce Procurement Manager to encourage environmentally preferable purchasing within the agency when possible. Examples of recycled content products include office paper, writing pads, file folders and other office supplies.

Green Film Making

Staff also worked with the S.C. Department of Commerce's Film Commission on information for green film making. Resource information for onset recycling, green building, green products, craft services, buying recycled, alternative fuels, transportation and energy conservation, and electronic waste was compiled. The Recycling Market Development staff emphasized ways that reducing, reusing and recycling materials can be incorporated into South Carolina's film industry.

Recycling Market Development Staff Memberships

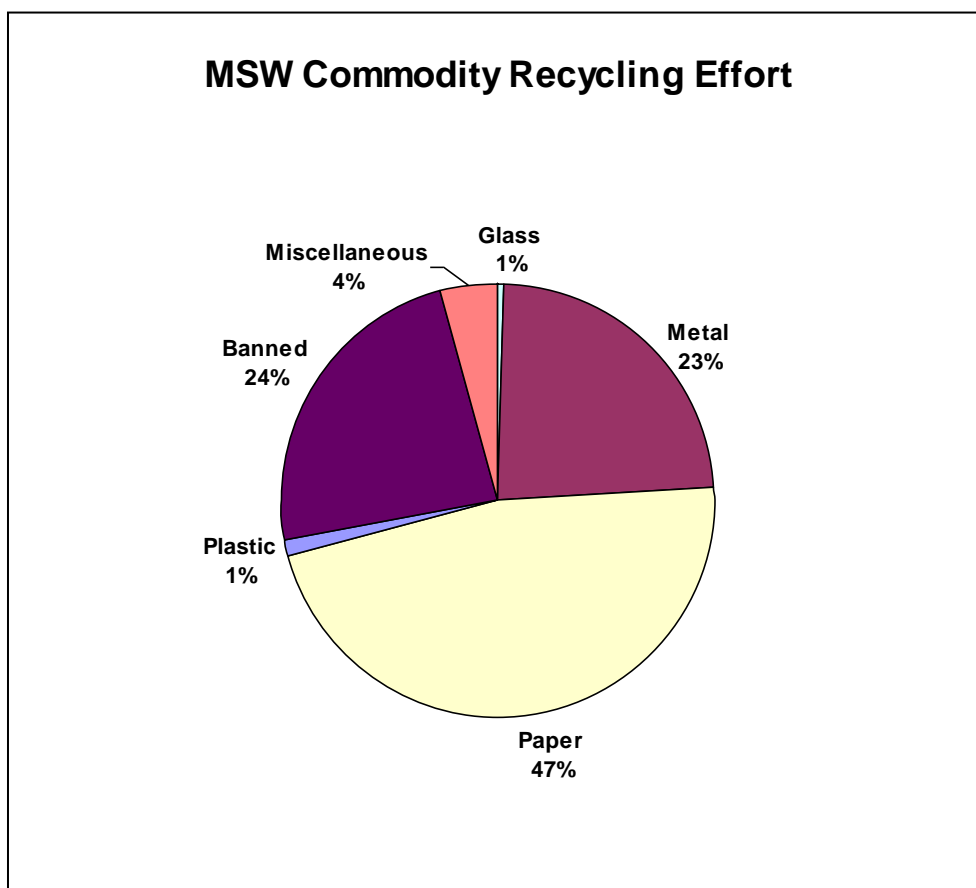
- Carolina Recycling Association
- Carolina Recycling Association Midlands Networking Council
- National Brownfield Association-S.C. Chapter
- National Recycling Coalition
- South Carolina Biomass Council
- South Carolina Economic Developers' Association
- Southeast Recycling Development Council
- South Carolina Resource Conservation Challenge Task Force
- South Carolina Solid Waste Association of North America
- Solid Waste Advisory Council
- South Carolina Waste Tire Committee
- U.S. Green Building Council-S.C. Chapter

The RMD staff continues to work with other states, businesses, industries and allies to evaluate alternatives to increase the overall recovery rates and identify barriers to and opportunities for new recycling markets.

SOLID WASTE RECYCLING EFFORTS

In 2007, South Carolina had a recycling goal of 35 percent of the municipal solid waste stream (MSW) and a disposal goal of 3.5 pounds per person per day. The actual recycling rate was 31 percent and disposal rate was 4.4 pounds per person per day.

In 2007, 8.6 million tons of total solid waste were recycled. Of this amount, the majority stemmed from paper, banned items and metals as the most recycled commodities.



MARKETS UPDATE



The Recycling Market Development Advisory Council industry representatives provide the following markets updates. The primary commodities typically recovered in most municipal and county recycling programs are as follows:

Type	Description
Glass	Clear, brown, green
Metal	Ferrous, nonferrous
Paper	Newspaper, corrugated
Plastics	PET, HDPE, clear and pigmented
Tires	Waste
Used Oil	Oil, filters, bottles

Each market update contains four sections, and each includes comments on supply, demand and pricing.

2007 Summary

This section discusses major changes in supply, demand and pricing that have occurred during the past year. Information on national and State perspectives are incorporated.

2008 Outlook

This section forecasts the market for the upcoming year and conditions impacting supply, demand and pricing for the material.

Future Trends

This section discusses long-term trends in supply, demand and pricing.

RMDAC Action

This section illustrates steps the Council should consider to help improve the market.

FERROUS METAL

2007 Summary

Ferrous metal returned to a more traditional pattern in 2007 but with greater price fluctuation and higher average price levels than seen before the “bull” run on commodities in 2004.

The first quarter of the year saw rising prices as tight inventories yielded a typical start during the cold weather months. The major difference in the current climate is that prices used to change by three to five dollars per month and now move in terms of \$20, \$30 or \$40 (per GT) per month; January, February and March were no exception to this new rule. Prices then crashed in the spring because supply rose too quickly before leveling off during a relatively calm summer. As the end of the year approached, prices began to rise again in advance of what could be another strong start to next year.

In the end, ferrous prices were higher on average compared to the prior year but below historic levels set in 2004-2005. Supply drove the price for most of the year. Lackluster U.S. demand did little to spur price, but a barren pipeline of scrap put pressure on steel mills to secure raw material at higher numbers. In addition, the weak dollar fostered the export of scrap (further limiting domestic supply) while limiting the availability of steel imports. This situation generally made for a healthy domestic steel industry for both suppliers and producers of ferrous metal.

2008 Outlook

2008 will start seasonally strong, but weaker economic conditions could eventually threaten prices next year. Prices are expected to moderate somewhat, but this year should be the fifth straight year of continued strength for ferrous metal. Even as domestic demand softens, there is still a global scrap shortage that has resulted from several years of high consumption and from metallic needs in other developing nations.

Future Trends

In the future, ferrous metal will continue to grow as a global commodity with further consolidation coming to the industry. The price of scrap metal in the United States will be increasingly influenced by other countries in the world. Two huge acquisitions were seen in 2007, as the two largest scrap companies in the U.S. were consolidated into even larger entities. Australian-based Sims purchased Metal Management for \$1.5 billion, and steel producer Steel Dynamics purchased Omnisource for \$1 billion. As ferrous metals have established themselves in the global arena, more mergers and acquisitions activity will take place within the industry.

RMDAC Action

RMDAC will continue to promote and encourage recycling activities that will increase the recovery of ferrous metal. Metal recycling remains economical with continued high prices, and there is available capacity to handle all industrial, municipal and consumer metal within the state.

GLASS

2007 Summary

Glass collected in South Carolina for recycling is sent to two regional processors: Strategic Materials in Georgia and Container Recycling Group in Raleigh, N.C. Market prices average \$28 per ton for clear, \$18 per ton for brown and \$10 per ton for green. Container Recycling Group also accepts unsorted three-mix glass in Raleigh. The charge for this mix is dependent upon the level of quality.

2008 Outlook

The market for glass cullet at container plants remains strong, driven by high energy costs, increased demand for glass containers and stiffer green house gas regulations. There is a renewed interest by container manufacturers to go "green" and increase post consumer content. Some manufacturers have as high as 50% post consumer content in new glass containers. Glass cullet demand has increased with fiberglass manufacturers because of high energy costs but also because of declining flat glass availability. The challenges with this market are tighter quality specs for the cullet. High fuel costs are affecting supply because of the higher cost of transporting unprocessed glass to processors. Some municipal recycling programs are feeling the crunch. Pricing should stay constant this year.

Future Trends

Fuel costs are also offsetting any chance of increased pricing. Supply also is affected by so-called "alternative uses" such as "alternative daily cover" at landfills. These uses are essentially end of life options rather than recycling.

RMDAC Action

RMDAC should continue to support programs that increase the overall recovery rate of recyclables in South Carolina as well as encourage communities to look at alternative markets for recovered glass.

PAPER

2007 Summary

Old Corrugated Cardboard (OCC): The market started the year out at \$60 per ton. In February, the market increased to \$95 per ton. By March, the market increased by \$50 per ton putting the price at \$145 per ton. In April, the market saw a \$25 per ton decrease lowering the market to \$120 per ton. The month of May saw another drop of \$15 per ton decreasing the market to \$105 per ton. The market finally held for the month of June. In July, the market increased by \$20, putting the market back to \$125 per ton. August brought another \$10 and the market was at \$135 per ton. September and October held steady. November brought a decrease of \$10 per ton as did December, as the year ended with a price of \$115 per ton. China and India were the main causes of the \$110 per ton plus market for the year. Their demand for this fiber is ever increasing as their capacity rises. The U.S. market was also very strong for the year as orders remained high and downtime was very minimal.

Newsprint: The year started with newsprint bringing \$85 per ton and ending the year at \$110 per ton. Rarely does newsprint price run higher than OCC, as it did in January, February and March. It does not have near the amount of fiber per ton as does OCC. For this year, it was fairly stable.

Office Paper: This grade started the year off at \$135 per ton in January, and it increased to \$160 per ton by May. The price held steady until December when it increased by \$35 per ton to end the year at \$195 per ton.

Mixed Paper: In 2007, because price and paper makers learned how to run this grade, mills started using this grade as a substitute for old corrugated boxes. Single stream recycling is increasing the collection of this grade as OCC, news and junk mail are combined to make this grade.

2008 Outlook

OCC: The outlook for OCC in 2008 will see much of the same trends throughout the year. China will again lead the way, and its demand will continue to increase as it builds new machines and adds running capacity to its present mill system. India will continue to grow and become a world player. At present, it looks as the U.S. paper mill calendars will remain full, as there was very little downtime on the domestic front for the holiday season.

Newsprint: Pricing should remain fairly steady for 2008, as mix paper continues to grow in supply and demand. Domestic demand in the southeast will play a big part for news demand and pricing in 2008. China and Asia will continue to pull from the northeast and west coast markets.

Office Paper: Domestic demand leads the way, as domestic mills increased demand for this grade. The export of office paper remained strong for 2007.

Mixed Paper: This grade will remain extremely strong in 2008, as both domestic and export markets seek this grade for high fiber content.

Future Trends

Mixed Paper: China and Asia will continue to pull from the northeast and west coast markets. Export demand for office paper will continue to grow as will domestic demand.

RMDAC Action

RMDAC will work to increase the recycling numbers in the State. The Council will also continue to work closely with S.C. DHEC and the Carolina Recycling Association to increase collections and to develop new markets.

PLASTICS

2007 Summary

Polyethylene Terephthalate (PET) Summary

According to recently published 2006 recycling rates from NAPCOR, 1,272 million pounds of PET bottles were recycled out of 5,424 million pounds sold for a recycling rate of 23.5%. The rate rose 0.4% from 2005 recovery levels. As reported by NAPCOR, PET bottle usage continued to grow at a solid, if not spectacular, rate. Post consumer bottle collections were up, and prices for bales and dirty flake provided a strong revenue stream to intermediate processors. While the increased supply ended up being exported, U.S. reclaimers were still able to secure adequate supply at pricing that allowed them healthy margins. The fact that the merchant supply of Recycled PET (RPET) was for the most part sold out for the year did not hurt either. Once again, U.S. RPET end markets continued to demonstrate more demand than could be supplied, now a chronic condition. So, all in all, 2006 was a good year for all elements of the PET post-consumer bottle industry.

Other key events that transpired were Wellman closing the Johnsonville, South Carolina, plant, Wal*Mart announcing to their suppliers and customers that the company would be evaluating the environmental impacts of all parts of its operations, including the packaging of the products it sells, and WMI closing its Chicago PRF and putting Raleigh up for sale. SER in Polkton, North Carolina, also idled this facility. Two new facilities surfaced, however: the Reterra plant in Houston, Texas, and the Global PET plant in Perris, California.

In addition, 2006 marked the first year in which more of the PET bottles collected for recycling went to export markets than stayed in the U.S. In 2006, 653 million pounds of Post Consumer bottles were purchased by exporters versus 619 million pounds by U.S. reclaimers.

All in all, 2006 proved to be a year of major changes to the face of the industry.

2008 PET Outlook

Demand continues to remain strong for 2008 with all domestic reclaimers. The export markets have made a shift towards ground dirty flake during 2008 as tighter regulations surfaced over baled bottles being imported into China. The export markets have shifted towards setting up or purchasing from dirty granulation facilities both on the west and east coast of the U.S. The RPET flake industry continues to see strong growth in sales. Pricing for all materials has remained strong during 2008 so far.

Future Trends

The growth in overall demand for recycled products both domestically and for export will continue to far outstrip supply. Focus on increasing supply by recycling processors, State and federal government agencies and the beverage industry must remain a high priority.

RMDAC Action

RMDAC will continue to work closely with S.C. DHEC and the Carolina Recycling Association to increase collections and develop new markets.

NONFERROUS ALUMINUM

2007 Summary

Aluminum prices averaged \$2,736 per metric ton in 2007, up from \$2,701 per metric ton in 2006.

North America (U.S. and Canada) primary aluminum production totaled 5,146,691 metric tons year-to-date (November), up 5.6% over the same period in 2006. However, orders recorded YTD by domestic producers, fell 8.6% below those of a year ago. Aluminum demand dropped 3.6%, and apparent consumption dropped 5.9% below the same period in 2006. Exports of aluminum from rose 9.1%, while aluminum imports dropped 21.4% from a year ago. The North American end-use markets' lackluster performance was tied to the U.S. economy. Regional slippage in car and light truck assembly, new-housing construction and consumer spending on durable goods reduced demand for aluminum-bearing commercial, construction and consumer products.

Approximately only 800,000 tons of aluminum was recycled last year out of the U.S. aluminum beverage can market of over 1.5 million metric tons per year (52%). The U.S. recycling rate has fallen steadily from its high of 68% in 1992. In comparison, Brazil and Japan report phenomenal recycling rates of nearly 95% and 92%, respectively, and the global average is 60%. In response to this information, a new aluminum industry goal was established to raise the industry's recycling rate from its current 52% to 75% by 2015. Recycled aluminum requires 95% less energy to produce and can be recycled a multitude of times.

2008 Outlook

London Metal Exchange aluminum prices drifted lower at the end of 2007 on the back of growing concerns on economic growth. North American demand for the first part of 2008 looks weak, but analysts predict improvement in the second half of the year, as the lagged impact of interest rate cuts takes effect.

Future Trends

Aluminum is expected to continue accelerated growth in the automotive market fueled by legislation passed December 18, 2007, by the U.S. House, establishing a historic 35 mile-per-gallon fuel economy standard by 2020. Other major areas of expected growth are in construction and packaging.

RMDAC Action

With an established recycling infrastructure in place, the Council should continue to educate and encourage local governments, private citizens, community groups and industry to recover more aluminum and other non-ferrous metals. Aluminum can recycling enables charitable organizations and groups to earn funds to further local projects, such as school improvements, Boy or Girl Scout troop funding and "Cans for Humanity" national partnership between the Aluminum Association and Habitat for Humanity International. It's a win-win for the individual, community, business, industry and the environment.

WASTE TIRES

2007 Summary

Waste tire markets in South Carolina remained healthy in 2007. According to the Recycling Market Development Program's annual Waste Tire Recycling Survey of S.C. DHEC-approved tire processors, the major portion of South Carolina waste tires was processed for tire-derived fuel (TDF). The survey of waste tire facilities and processors shows that 9.4 million South Carolina waste tires were recycled into a variety of products in 2007. This number includes more than 8 million post-consumer tires and over 864,000 post-industrial tires. The recycled products include civil engineering applications, TDF and crumb rubber.

2008 Outlook

The markets for products derived from waste tires should remain strong in 2008. These markets include mulch, playground and sports turf. The markets for TDF and civil engineering applications are anticipated to expand in the coming year, and cement kilns are expected to continue to be a major end-use market. Markets for tire-derived aggregate should remain stable in 2008. Civil engineering application projects facilitated by the Asphalt Recovery Technology Service (ARTS) Center at Clemson University should assist in creating a steady market for processed crumb rubber.

Future Trends

Market demand for processed waste tires should remain stable. The TDF market is anticipated to grow due to increases in fuel prices. Markets for civil engineering applications should remain constant. The market for crumb rubber applications should grow as the demand for its use in rubberized asphalt, playground and sport turfs increase. As a result, this market is anticipated to grow in the next couple of years.

RMDAC Action

The Council will continue to support existing waste tire markets and encourage the use of crumb rubber in asphalt rubber paving and other added-value applications for recycling waste tires in South Carolina.

USED OIL

2007 Summary

The statewide used motor oil recycling program targeting do-it-yourselfers (DIYers; those who change their own oil) continues to flourish. Through a combination of educational programs, technical assistance and grant funding for local governments, South Carolina has developed one of the nation's most comprehensive used motor oil recycling programs for DIYers.

According to figures compiled by S.C. DHEC's Office of Solid Waste Reduction and Recycling, DIYers recycled 1,002,006 gallons of used motor oil in calendar year 2006. This marks the eighth consecutive year that more than 1 million gallons were collected. Overall, more than 13 million gallons have been collected from DIYers since used motor oil recycling efforts began in South Carolina in 1990. Figures for 2007 were not available when this document was prepared.

The recycling of used motor oil filters reflects a significant environmental protection program considering that each filter may contain from four ounces to one quart of oil if not properly drained. In fiscal year (FY) 2006 (July 1, 2005 – June 30, 2006), most counties collected used motor oil filters from DIYers for recycling. Many of these counties collect and market used motor oil filters with large appliances and/or other metals. With this being the case, not all used motor oil filters that are being recycled are being counted directly. As a result, numbers are not available to measure used oil filter recycling efforts.

The recycling of motor oil bottles also offers an important environmental protection program considering that they can contain up to an ounce of oil each if not thoroughly drained. In FY 2006, most counties collected and marketed motor oil bottles with other pigmented HDPE plastic. As a result, numbers are not available to directly measure motor oil bottle recycling efforts.

Introduced in January 2000, the OSWRR office continues to offer the "Green Driver Project" that targets students in high school driver education classes. The project stresses the environmental impact of driving and includes information on recycling used motor oil, filters and bottles, energy conservation, ground-level ozone prevention and other environmental tips. The project serves as a lifelong lesson in environmentally responsible driving. Since the project began, staff made 1,838 classroom presentations to 84,499 students. "DHEC 1: Behind the Oil Change," a video chronicling the life of a driving teenager and the consequences of his decision to improperly dispose of his used motor oil, debuted in summer 2002. The video has been extremely well accepted and received an In-Show award that honors excellence in advertising and public relations. The video also won an Emmy award from the National Academy of Television Arts and Sciences. In addition, the office set up a partnership with Palmetto Pride to add to the project a litter component, including litter laws and enforcement, beginning in 2002.

2008 Outlook

The amount of used motor oil, bottles and filters collected for recycling should continue to grow in 2008. The priorities of the office regarding its used motor oil recycling program are:

- To continue to expand the farmer oil collection program by adding collection tanks where needed. There are currently 54 farmer oil collection sites in 39 counties (Abbeville, Aiken, Allendale, Anderson, Bamberg, Barnwell, Beaufort, Cherokee, Chester, Chesterfield, Clarendon, Colleton, Darlington, Dillon, Dorchester, Edgefield, Fairfield, Florence, Georgetown, Greenville, Greenwood, Hampton, Horry, Kershaw, Lancaster, Lee, Lexington, McCormick, Newberry, Oconee, Orangeburg, Pickens, Richland, Saluda, Spartanburg, Sumter, Union, Williamsburg and York). Two more counties will be setting up tanks in FY 2008. Each of the tanks holds at least 550 gallons of used motor oil and is fitted with a pump and hose to make it easier for farmers to recycle up to 55 gallons of used motor oil at one time.
- To continue to expand the oil/gasoline mixture collection program by adding collection tanks where needed. There are currently 64 oil/gasoline mixture collection sites in 40 counties (Abbeville, Aiken, Allendale, Anderson, Bamberg, Barnwell, Beaufort, Berkeley, Calhoun, Charleston, Cherokee, Chester, Chesterfield, Clarendon, Colleton, Darlington, Dorchester, Edgefield, Fairfield, Florence, Georgetown, Greenville, Greenwood, Hampton, Horry, Kershaw, Lancaster, Lee, Lexington, McCormick, Newberry, Oconee, Orangeburg, Pickens, Richland, Saluda, Spartanburg, Sumter, Williamsburg and York). One other county will be setting up a tank in FY 2008. The oil/gasoline mixture tanks typically hold 500 gallons and are designed to accept motor oil, gasoline and oil/gasoline mixtures from lawn equipment and recreational vehicles.
- To secure and maintain markets or other uses for used motor oil, bottles and filters.

Future Trends

The office will continue to provide grant funding to local governments to set up, maintain and improve used motor oil recycling programs. The office also will continue its statewide awareness campaign on used motor oil recycling including the national award winning "Recycle Guys" public service announcements and the "Green Driver Project."

RMDAC Action

The Recycling Market Development Advisory Council should continue its work promoting, supporting and securing markets for the state's used motor oil recycling program.

APPENDICES

APPENDIX A

RECYCLING MARKET DEVELOPMENT ADVISORY COUNCIL

APPOINTEES

REPRESENTING

Phil Ammons
Plastics Provider, Inc.

Plastics Industry

Vic Carpenter
Anderson County

County Government

Steve Carreras
Recycle American Alliance

Glass Industry

Norman Chandler
Allied Waste Systems

Solid Waste Collection and Disposal Industry

Kay Clamp
S.C. Petroleum Council

Petroleum Industry

A. Gerald Fishbeck
United Resource Recovery

Recycling Industry
Chair, RMDAC

Chris Fisher
Fisher Recycling

General Public

Haskell Grant
Milliken & Company

S.C. Department of Commerce

Ronnie Grant
Sonoco

Paper Industry
Vice-Chair, RMDAC

Cheryl Kirkland
ALCOA Mt. Holly

Aluminum Industry

Roger LeDuc
City of Aiken

Municipalities

Art Levy
Carolinas Recycling Group

Scrap Metal Industry

Donna London
Strom Thurmond Institute, Clemson University

Higher Education Research

Steve Padula
Michelin North America

Tire Industry

NEWLY APPOINTED

Mike Baird
Milliken & Company

Hari Krishnan
Michelin North America

REPRESENTING

S.C. Department of Commerce

Tire Industry

RECOMMENDED

Lin Longshore
Safety-Kleen

Petroleum Industry

RMDAC STAFF

Chantal Fryer
Tonya Lott
Jeannette Stroy

S.C. Department of Commerce
S.C. Department of Commerce
S.C. Department of Commerce

APPENDIX B



South Carolina Department of Commerce
1201 Main St., Suite 1600, Columbia, SC 29201-3200 - (803) 737-0400 / (803) 737-0894 fax

FOR IMMEDIATE RELEASE

Date: 9/6/2007

South Carolina to Become Home to World's Largest Plastic Bottle Recycling Plant

Investment Agreement Between Spartanburg-based URRC and The Coca-Cola Company Brings Jobs and Opportunity to S.C.

COLUMBIA, S.C. - The South Carolina Department of Commerce today announced that The Coca-Cola Company and United Resource Recovery Corporation (URRC) have finalized an investment agreement to build the world's largest food-grade plastic bottle to bottle recycling plant.

Gov. Mark Sanford offered the following comments regarding the investment agreement, "This announcement represents a significant step for our state in terms of global recognition and new opportunity. The fact that a world-renowned leader such as Coca-Cola chose to partner with a South Carolina company demonstrates the strength of our state's business climate, the innovation in our economy, and our state's ability to compete in a growing global marketplace."

The \$50 million plant to be located in Spartanburg, S.C. will produce approximately 100 million pounds of recycled PET (polyethylene terephthalate) plastic for reuse each year - the equivalent of producing nearly two billion 20-ounce Coca-Cola bottles. The expansion project on the 30-acre Spartanburg site will be completed in 2008 and is expected to create approximately 100 new jobs over five years.

"We are proud to announce our new partnership with The Coca-Cola Company. The potential of this business is vitally important to the global recycling economy and the environment, and we are well positioned for the future," said Carlos Gutierrez, President, United Resource Recovery Corporation.

Recycling plastic for reuse yields financial benefits, requires less energy, and reduces waste and greenhouse gases. Over the next 10 years, this new Spartanburg recycling plant will eliminate the production of one million metric tons of carbon dioxide emissions – the equivalent of removing 215,000 cars from the road.

"We are pleased to announce this expansion of our facilities in Spartanburg County. Upon completion this plant will recycle over five million bottles per day.

This new capacity will help all of our customers meet their sustainable packaging goals while assuring a growing high value domestic market for recycled post-consumer bottles for municipal collection programs

nationally,” said Gerry Fishbeck, Vice President, United Resource Recovery Corporation and Chairman of the South Carolina Recycling Market Development Advisory Council.

A prototype plant has been operational commercially since 2001 at the Spartanburg location. This new Spartanburg plant is modeled after the first successful food quality plastic recycling facility opened in Mexico in 2005 and operated by The Coca-Cola Company and its bottlers.

“URRC is a world leader in recycling technology and its presence in South Carolina elevates our state’s reputation in this field. The Department of Commerce has worked with URRC for a number of years to expand opportunities and grow its Spartanburg facility. Today’s announcement is the culmination of these efforts and is sure to be only the beginning of more good news in the years to come,” said Joe Taylor, South Carolina Secretary of Commerce.

Coca-Cola initiated a partnership with URRC in 1996 aimed at accelerating the development and commercialization of new, sustainable recycling processes. Since this time the Coca-Cola System has invested in recycling plants using the URRC process and other technologies, in 17 countries.

Today there is a strong demand for recycled PET -both in the U.S. and throughout the world. More than 50 percent of PET plastic beverage bottles collected in the U.S. are used for fiber applications such as carpeting, clothing, and fiberfill. This demand, coupled with other end-use markets such as bottles, continues to ensure that the value for collected PET plastic remains strong.

About URRC

The United Resource Recovery Corporation (URRC), headquartered in Spartanburg, S.C. is a leader in PET recycling technology. In 1994, URRC completely revolutionized the PET recycling industry by developing and patenting the world renown Hybrid UnPET process for chemically super-cleaning PET flake for cost efficient food grade packaging. In 1996, the company entered into a five-year development program with The Coca-Cola Company to commercialize the process by producing food-grade quality PET chip for bottle-to-bottle recycling. URRC provides manufacturing in the United States and offers licensing opportunities and engineering services for clients worldwide.

APPENDIX C



South Carolina Department of Commerce
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FOR IMMEDIATE RELEASE

Date: 9/18/2007

Recycling Cluster Committee to Promote S.C. Recycling Industry

Forum to Advance Recycling Industry Scheduled for Oct. 5

COLUMBIA, S.C. - September 18, 2007 – The South Carolina Department of Commerce’s Recycling Market Development program announced the formation of a Recycling Cluster Committee to promote the growth of the recycling industry in South Carolina. The Committee formation follows a 2006 economic impact study released by the S.C. Department of Commerce that shows the recycling sector is a major economic engine for the state. The study indicates that over 300 recycling businesses contribute to more than 37,000 jobs and a \$6.5 billion total economic impact to South Carolina’s economy. In addition, the recycling industry is anticipated to grow 12 percent annually over the next five years, leading to an \$11 billion economic impact.

"The economic impact of recycling is not the only benefit the Recycling Cluster Committee will bring to South Carolina," said Gerry Fishbeck, Chairman of the Recycling Market Development Advisory Council (RMDAC). "We will also see significant synergies with the state's energy initiatives and environmental needs as recycling positively impacts both energy and the environment through increased sustainability of resources."

The mission of the Recycling Cluster Committee is to expand and strengthen South Carolina’s recycling industry. This involves establishing policy, building networks, promoting market development, and leveraging existing infrastructure. It will also bring together recycling businesses and industries that utilize recycled materials in manufacturing processes and help promote and position recycling markets and businesses as competitive, viable participants in the development and retention of jobs. Additionally, the industry will generate tax revenues and increase economic development opportunities.

New Carolina, South Carolina’s Council on Competitiveness, is the steering group for cluster activities in the state. George Fletcher, executive director for New Carolina said, "We are pleased to work with RMDAC, as well as industry, government and academic personnel to grow the recycling cluster. Costs of energy and raw materials are spiraling upwards, and a strong recycling industry will help the state’s overall economic development efforts."

Sonoco Products, a global packaging company that uses recycled content, is the anchor company involved in the recycling industry. "Sonoco Products is proud to be a part of this exciting initiative. Recycling is vital to South Carolina's environment and economy," said Ronnie Grant, Senior Account Representative, Sonoco Products.

The Recycling Cluster efforts will be facilitated by the Department of Commerce's Recycling Market Development staff and the Governor's appointed Recycling Market Development Advisory Council. A forum to advance the industry initiative will be held at the Columbia Metropolitan Convention Center on Friday, October 5 in Columbia. For more information on the Recycling Cluster Committee and industry forum, contact Chantal Fryer at 803.737.0477 or cfryer@sccommerce.com. Information can also be found at www.sccommerce.com/recycle.html.

APPENDIX D



South Carolina Department of Commerce
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FOR IMMEDIATE RELEASE

Date: 12/10/2007

S.C. Recycling Businesses Recognized for Achievements

COLUMBIA, S.C. - The South Carolina Recycling Market Development Advisory Council and the S.C. Department of Commerce recently recognized the achievements of four recycling businesses for their impact on South Carolina's environment, communities, and economy. The Recycling Cluster Forum held in October provided an opportunity for recycling businesses and industry to network and participate in planning the strategic direction of the recycling industry. The following businesses were recognized for achievements in recycling:

Best Small Recycling Business – Renew Resources LLC, Rock Hill, S.C.
Renew Resources was established in 1999 as a recycler of used oil filters and antifreeze and has since added a variety of other recycling options for its customers. In 2006, Renew Resources diverted 2.5 million pounds of used oil filters from the area landfill and recycled more than 50,000 gallons of used antifreeze. Its state-of-the-art multi-axis hydraulic crushing machine converts used oil filters into compact bricks which are then sent to steel mills to be recycled. From its filter crushing process, Renew Resources has generated over 200,000 gallons of used oil.

Best Medium Industry Recycling Program – PBR of Columbia, West Columbia, S.C.
PBR of Columbia is a brake manufacturer that supplies advanced brake system products and technology to the global automotive market. The company recycles cardboard, plastic bottles, pallets, iron, aluminum cans, magazines, office paper, and plastic bags. Through its recycling efforts, it has diverted over 4,700 tons of material from area landfills while also recycling 780 tons of aluminum annually. Its wastewater reduction and recycling process has recycled over 880,000 gallons of water.

Best Emerging Market Recycling Business – Southeastern Plastics Recovery, Charleston, S.C.
Southeastern Plastics Recovery is a hauler and recycler of post-consumer carpeting and carpet related scrap. The company has recycled over 50 million pounds of carpet cushion and carpeting during its 20 years in business.

It is a corporate sponsor for the Carpet America Recovery Effort (CARE) - a joint industry-government effort to increase the recycling and reuse of post-consumer carpet and decrease the amount of carpet waste going to landfills. Southeastern Plastics Recovery has retail customers and county solid waste recycling sites in seven South Carolina cities.

Recycler of the Year – Nucor Steel Darlington, Darlington, S.C. 98 percent of the steel produced at Nucor Steel's Darlington Facility is comprised of recycled steel scrap. It also recycles 99 percent of by-products generated during its steel making processes as well as 120,000 tons of slag material annually. The facility recycles over one million tons of old cars, appliances, steel from old buildings and many other items. Over 15,000 tons of electric arc furnace dust is recycled at Nucor Steel and used as a raw material feedstock, and the company also recycles over 35,000 gallons of water per minute – conserving over 18 billion gallons of water per year.

In an effort to further grow the recycling industry and increase recycling among the state's businesses, the Department of Commerce joined the Department of Health and Environmental Control (DHEC) in launching the S.C. Smart Business Recycling Program last month. The program partners include three DHEC programs – the Center for Waste Minimization, Small Business Environmental Assistance Program, and Office of Solid Waste Reduction and Recycling – and the S.C. Department of Commerce's Recycling Market Development Program.

The program offers free, confidential and non-regulatory assistance to businesses, non-profits, governments and other organizations. Businesses interested in more information about the program can call 1-800-768-7348 or visit www.scdhec.gov/smartbusiness.

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APPENDIX E

FOR IMMEDIATE RELEASE

Nov. 15, 2007



South Carolina Department of Health
and Environmental Control

NEWS RELEASE

Division of Media Relations
2600 Bull Street
Columbia, S.C. 29201
(803) 898-3886
<http://www.scdhec.gov/news>

S.C. Smart Business Recycling program officially kicks off

COLUMBIA – An innovative program specifically designed to assist businesses in reducing waste, recycling and perhaps saving money in the process debuted today, the state Department of Health and Environmental Control announced today.

The S.C. Smart Business Recycling program offers free, confidential and non-regulatory assistance to businesses, non-profits, governments and other organizations through a partnership between DHEC and the S.C. Department of Commerce. The program includes S.C. Department of Commerce's Recycling Market Development Program as well as the Center for Waste Minimization, Small Business Environmental Assistance Program, and Office of Solid Waste Reduction and Recycling at DHEC.

"Business and industry typically generates about 60 percent of the total amount of municipal solid waste generated," said DHEC Commissioner C. Earl Hunter. "The Smart Business Recycling program provides businesses ways to manage that waste better in an effort to reduce an organization's environmental footprint as part of an overall sustainability program.

"Recycling conserves natural resources and energy, reduces greenhouse gas emissions, avoids disposal costs, as well as lessens the need to build landfills and incinerators," Hunter said. "Whether you have a manufacturing, health care, retail, wholesale, food service or construction business, your business can benefit from recycling."

"As we work to expand and strengthen the recycling industry in South Carolina, it is important that we work to promote recycling throughout the state's businesses," said Chantal Fryer, manager for recycling market development at the Department of Commerce. "The Recycling Market Development program is pleased to join DHEC in the Smart Business Recycling program."

Services offered by the S.C. Smart Business Recycling Program include making site visits to assess reuse, waste reduction and recycling opportunities; sharing best management practices; and providing research and contacts for potential markets, service providers and beneficial reuse. In addition, the program provides the S.C. Materials Exchange, which is a free service that allows businesses and other organizations to reduce waste by exchanging reusable material.

“Recycling is big business in South Carolina. Recycling provides more than 15,000 jobs, \$69 million in annual tax revenue, \$1.5 billion in annual personal income and \$6.5 billion in total economic impact,” Hunter said. “There are about 300 recycling businesses in the state.”

According to Hunter, businesses that recycle and report their recycling activities will help South Carolina meet its recycling goal of 35 percent of the municipal solid waste generated. The state’s current recycling rate is 30.4 percent.

For more information, please call 1-800-768-7348 or visit <http://www.scdhec.gov/smartbusiness>.

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APPENDIX F

**RECYCLING CLUSTER FORUM EVALUATION
FRIDAY, OCTOBER 5, 2007
COLUMBIA METROPOLITAN CONVENTION CENTER**

Please take a moment to complete this evaluation to help us ensure that the forum was useful and informative. We appreciate your help!

On a scale of 5 (**strongly agree**) to 1(**strongly disagree**), please rate the following statements by checking the appropriate box. If you have specific comments or suggestions, please include them at the end of the survey.

Please circle your choice on the scale to the right of the following Questions.	Strongly Agree	Agree	Neither Disagree or Agree	Disagree	Strongly Disagree
1. The meeting proved to be a productive use of my time.	5	4	3	2	1
2. Overall, I found the information presented to be useful and informative.	5	4	3	2	1
3. I found new contacts and opportunities for future collaboration.	5	4	3	2	1
4. The speakers were informative and knowledgeable on the subjects they addressed.	5	4	3	2	1
5. The meeting time was convenient and an appropriate length for the information presented.	5	4	3	2	1
6. Department of Commerce staff was helpful.					

7. What topics would you have liked to hear more about that were not covered in today's session?
8. Please provide any recommendations or suggestions you may have for Department of Commerce Recycling Market Development staff or for future discussions at Recycling Market Development Advisory Council and/or Recycling Cluster meetings.

APPENDIX G

Company Name: _____

2007 SOUTH CAROLINA WASTE TIRE SURVEY

1. PLEASE PROVIDE THE NUMBER OF **PASSENGER OR LIGHT TRUCK TIRES** PROCESSED IN 2007:

Post Consumer Tires (from retail, municipal and individuals) from SC? _____

Post Industrial Tires (from manufacturing and industrial scrap tires) from SC? _____

2. PLEASE PROVIDE THE NUMBER OF **HEAVY TRUCK TIRES** PROCESSED IN 2007:

How many were Post Consumer Tires from South Carolina? _____

How many were Post Industrial Tires from South Carolina? _____

3. WHAT **PERCENTAGE** OF TIRES PROCESSED WAS USED IN THE FOLLOWING APPLICATIONS?

Drainfields _____ (Please circle the following application: Septic, Landfill Leachate, Other)

Tire-Derived Fuel: Processed Material _____ Whole Tires _____

Crumb Rubber _____ Market _____ Mesh Size _____

Landscape/Playground Material:

Civil Engineering:

Stamped or Pressed Products:

Other: (Please describe)

4. DO YOU TAKE LARGE OFF-ROAD, FARM, MINING, OR LOGGING EQUIPMENT TIRES?
YES _____ NO _____ IF YES, HOW MANY? _____

How do you manage these tires?

5. WHAT PERCENTAGE OF YOUR PRODUCT IS SOLD IN SOUTH CAROLINA?

6. DO YOU HAVE MARKETS FOR STEEL AND FABRIC WASTE? IF YES, WHAT ARE THEY?

7. WHAT IS YOUR CURRENT CAPACITY? _____

8. DO YOU HAVE PLANS TO EXPAND IN THE NEXT YEAR? YES _____ NO _____

9. APPROXIMATE INVESTMENT AMOUNT \$ _____

10. Comments (use additional paper if necessary):

APPENDIX H

Seven groups of activities

Value chain

- Joint purchasing
- Joint logistics
- Joint production
- Supply-chain development

Process/HR

- Technical training
- Management training
- Technical standards
- Education system
- Production processes

Bus. environment

- Regulations and policy
- Infrastructure investment

Firm formation

- Incubator services
- Spin-off promotion
- Business services

Joint marketing

- Joint product branding
- Joint region branding
- Joint foreign market

Joint R&D

- Joint R&D projects

Intelligence

- Market intelligence
- Technical trends